February 21, 1981
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Forecasting 1981, 1982 Sales page 18

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February 21, 1981 • Vol. 96 • No. 5

Implement & Tractor

The Business Magazine of the Farm and Industrial Equipment Industry

in this issue...

12: **A Tractorless Dealership.** A Norfolk, Neb., dealership has been very successful specializing in harvesting equipment with heavy emphasis on parts and advertising, and a service attitude that produces a high level of employee productivity.

18: **Industry Outlook.** Tractor and field equipment manufacturers at FIEI's Marketing & Management Conference predict rebounds in unit retail sales, while agri-equipment companies are less enthusiastic.

24: **Wages and Salaries.** I&T reviews studies of employee incomes from three surveys of dealerships in six states.

34: **More About the Tractor Census.** I&T editor Bill Fogarty analyzes the latest U.S. tractors-on-farms totals for the 50 states, and raises some questions for suppliers of belts, tires, filters, lubricants, and replacement parts.

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AUCTION PRICES OF USED EQUIPMENT

An exclusive I&T monthly report of actual prices paid recently at these leading national wholesale auctions.

Asterisk beside tractor price indicates highest bid offered on tractors which were not sold.

JONES FARM EQUIPMENT CO
Dothan, Alabama
(January 13, 1981)

ALLIS-CHALMERS TRACTORS
200 diesel, 1973 (Good) 6400
200 diesel, 1973 (Good) 6000
190 diesel, 1968 (Fair).....2750

CASE TRACTORS
730 diesel, 1963 (Rough) 700
580B diesel, ldr., backhoe, 1972 (Excellent) 7300

DEUTZ TRACTOR
4006 diesel, (Good) 1800

DAVID BROWN TRACTORS
990 diesel, 1968 (Excellent) 2500*
990 diesel, 1965 (Fair).....1350
990 diesel, 1965 (Good) 1700

MASSEY-FERGUSON TRACTORS
1105 diesel, 1975 (Good) 7350
1085 diesel, 1973 (Good) 5100
285 diesel, 1976 (Good) 6700
275 diesel, 1979 (Excellent) 7900
275 diesel, 1975 (Good) 5900*
235 diesel, 1975 (Good) 4250
180 diesel, 1967 (Good) 3600
175 diesel, 1971 (Excellent) 4300
175 diesel, 1971 (Excellent) 4300
175 diesel, 1968 (Good) 4000
175 diesel, 1967 (Good) 3700*
165 diesel, 1970 (Good) 3350
165 diesel, 1970 (Good) 3300
165 diesel, 1968 (Good) 3000
165 diesel, 1968 (Good) 2900*
165 diesel, 1967 (Good) 3450
165 diesel, 1967 (Good) 3300
165 diesel, 1966 (Good) 3360*
165 diesel, 1966 (Good) 3550
165 diesel, 1966 (Good) 3000
165 diesel, 1966 (Good) 3250
165 diesel, 1966 (Good) 3200*
150 diesel, 1967 (Excellent) 2800*
150 diesel, 1965 (Good) 2500
150 diesel, 1965 (Fair).....1900*
135, 1973 (Excellent).....3600
135 diesel, 1971 (Excellent) 3850
135, 1971 (Excellent).....3700
135, 1967 (Good) 2650
135 diesel, 1967 (Rough) 2150
65 diesel, 1963 (Good) 1950
65, 1963 (Excellent).....2450
65 diesel, 1960 (Good) 1950
50 diesel, ldr., backhoe, 1974 (Excellent) 7000
50 diesel, ldr., backhoe, 1974 (Excellent) 7400
50 diesel, ldr., backhoe, 1970 (Good).....5400
50, 1960 (Fair).....950
50, 1962 (Good) 2000*
35 diesel, 1963 (Excellent) 2500
35 diesel, 1963 (Excellent) 2300
35 diesel, 1962 (Good) 1875
35 diesel, 1960 (Excellent) 2400
35, 1956 (Good) 1825*
30 diesel, 1971 (Good) 2150
TO 30, 1952 (Rough) 450
TO 20, 1950 (Good) 850
TO 20, 1949 (Fair) 700

FORD TRACTORS
8600 diesel, cab, 1975 (Excellent) 8100*
5000 diesel, 1975 (Excellent) ...5300*
5000 diesel, 1975 (Excellent) ...5550
5000 diesel, 1968 (Good) 3500
5000 diesel, 1966 (Excellent) ...4600
4600 diesel, 1978 (Excellent) ...8800
4000 diesel, 1968 (Excellent) ...4000*
4000, 1963 (Good) 1600*
3600 diesel, 1979 (Excellent) ...7000*
3550, ldr., (Good).....3500
3000, 1970 (Excellent).....3700
3000 diesel, 1968 (Good) 3200
3000, 1968 (Excellent).....3550
3000, 1968 (Excellent).....3550
3000, 1968 (Excellent).....3500*
3000 diesel, 1967 (Good) 3200*
3000, 1965 (Good) 2700
2000 diesel, (Rough) 350
1600 diesel, (Excellent).....3000
861 diesel, 1958 (Rough) 1050
851 diesel, 1958 (Good) 2000
841, 1959 (Fair).....1400
841, 1958 (Excellent).....2150
650, 1955 (Good) 1700*
641 diesel, 1958 (Good) 1800
641 diesel, 1958 (Fair).....1250
640, ldr., 1955 (Fair) 875
Major diesel, 1954 (Fair).....675*
NAA, 1954 (Good) 1450
Jub., 1953 (Good) 1400
Jub., 1953 (Good) 1500
Jub., 1953 (Fair).....1050
8N, 1952 (Excellent) 1500
8N, 1952 (Excellent) 1650
8N, (Good) 1325*

INTERNATIONAL HARVESTER TRACTORS
2500 diesel, ldr., (Good).....2400
1566 diesel, 1974 (Good).....10,100
1066 diesel, 1975 (Good) 9250
966 diesel, cab, 1973 (Excellent).....8900
806 diesel, 1967 (Excellent) 4350
656 diesel, 1968 (Good) 3200*
656 diesel, 1967 (Good) 3400*
574 diesel, 1973 (Good) 4700*
544 diesel, 1972 (Fair).....2100
504, 1963 (Fair).....775
460, 1959 (Rough) 775*
444 diesel, 1968 (Rough) 1500
Sup. M, 1953 (Excellent) 1000
H, 1951 (Good).....450
C, 1948 (Good).....625
Cub, cult., plow, 1948 (Fair).....775*
Cub, cult., plow, 1948 (Good) 1150*
Cub, cult., 1948 (Good) 1150
Cub, ldr., 1948 (Fair).....875*
Cub, mo., 1948 (Fair) 750*
Cub, 1948 (Rough).....325
Cub, cult., plt., plow, har., 1948 (Fair).....750
A, 1941 (Good).....325

JOHN DEERE TRACTORS
4430 diesel, 1973 (Good).....10,800
4020 diesel, 1970 (Good) 5500*
4020 diesel, 1969 (Excellent) ...7350
4020 diesel, 1965 (Good) 6400*
4010 diesel, 1963 (Fair).....3250
3020 diesel, 1965 (Good) 5150
3020, LP, 1965 (Fair).....2900*
2630 diesel, 1975 (Excellent) ...6100*
2030 diesel, 1973 (Excellent) ...4800*
2020 diesel, 1974 (Good) 4000*
2020 diesel, 1973 (Good) 3775
2020 diesel, 1973 (Good) 4200
2010 diesel, 1965 (Good) 1300*
2010, ldr., 1961 (Fair) 1200
850 diesel, 1979 (Good) 4100
420, 1957 (Good) 1400*
420, 1956 (Good) 1375
420, 1956 (Fair).....950
401C diesel, 1975 (Excellent)...6100
40, 1953 (Good) 925

LEYLAND TRACTOR
384 diesel, 1971 (Rough) 1050

MASSEY-HARRIS TRACTORS
50, 1956 (Good) 1600
44, 1951 (Fair).....400*

OLIVER TRACTORS
1755 diesel, 1972, (Good).....5300
1655 diesel, 1971 (Good) 3725
1600 diesel, 1963 (Rough) 875
550 diesel, 1958 (Rough) 725
550 diesel, 1958 (Good) 1800
55 diesel, 1955 (Fair).....525

NOTES
Prices reported are for individual sales at wholesale on "as is," "cash and carry" basis.
Prices reported are NOT averages.

Condition classifications: EXCELLENT means—Engine: in perfect condition, 400 to 600 hours of use; Rubber: 80% tread remaining, no breaks or cracks; Paint: original and bright; General Appearance: excellent.

GOOD means—Engine: good running condition; Rubber: 70% tread remaining, no breaks or cracks; Paint: original paint or a good repaint job; General Appearance: good over-all.

FAIR means—Engine: possibly in need of a minor overhaul to restore; Rubber: 60% tread remaining, some cracking evident in side walls; Paint: only fair, weathered and some rust apparent; General Appearance: worn, some dents, minor parts such as gage covers missing or broken.

ROUGH means—Engine: obviously in need of a major overhaul; Rubber: smooth; Paint: scarred, weathered, rusty, needs painting urgently; General Appearance: dents, ruptures, broken parts, loose wires, some components such as lights broken, missing or inoperative.

DEMONSTRATOR means—used for demonstrating only and in practically new condition.

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INDUSTRY MARKETERS MAKE 1981, 1982 FORECASTS

By Bill Fogarty

Makers of tractors and field equipment predict sharp rebounds in retail sales this year, but their understanding of inflation factors appears clouded. Agri-equipment companies are somewhat less enthusiastic.

■OVER THE past year, farm equipment marketers have come to pay more attention than ever before to the prime rate and to interest costs faced by farmers. One thing they've learned:

For the prime rate not to be a deterrent to agricultural equipment sales, it will have to be around 12 or 13 per cent, or lower. This is the consensus opinion held by participants in the Farm & Industrial Equipment Institute's State-of-the-Industry survey, as delivered Jan. 30 at FIEI's Marketing & Management Conference at Miami Beach, Fla.

However, the marketers feel that the prime rate will go down to 13 per cent in August.

FORECASTING 1981, 1982
(Retail sales of units, United States)

Product	1979 Actual	1980 Actual	1981 Forecast	1981 Pct. change	1982 Forecast	1982 Pct. change
Tractors						
Under 40 HP	49,297	46,742	47,000	+ 0.6	49,500	+ 5.3
40-99 HP	65,002	58,191	61,500	+ 5.7	65,000	+ 5.7
100 HP and over	62,535	50,332	59,000	+17.2	60,107	+ 1.9
Four-Wheel Drive	11,455	10,886	11,500	+ 5.6	12,075	+ 4.1
Total	188,289	166,151	179,000	+ 7.7	183,500	+ 2.5
S-P Combines	32,246	25,722	29,500	+14.7	30,700	+ 4.1
Cornheads	22,374	17,785	19,400	+ 9.1	20,750	+ 7.0
Field Cultivators	16,951	14,500	16,775	+15.7	17,750	+ 5.8
Chisel Plows	15,345	14,000	15,250	+ 8.9	16,050	+ 5.2
Disk Harrows	63,185	51,800	57,500	+11.0	61,000	+ 6.1
Moldboard Plows	31,743	24,000	25,500	+ 5.3	26,100	+ 2.4
Conventional Balers	18,750	14,005	14,750	+ 5.3	15,000	+ 1.7
Big Balers	21,351	16,453	19,000	+15.5	20,400	+ 7.4
Mower-Conditioners	25,600	19,449	21,050	+ 8.2	23,250	+10.5
Forage Harvesters	12,451	9,453	10,650	+12.7	11,350	+ 6.6
Windrowers/Swathers	8,918	7,100	8,140	+14.6	8,500	+ 4.4
Cotton Strippers	1,774	1,650	1,950	+18.2	1,950	0.0
Manure Spreaders	18,103	14,000	17,000	+21.4	18,500	+ 8.8
Grinder-Mixers	11,673	8,500	9,000	+ 5.9	10,000	+11.1

Source: Farm & Industrial Equipment Institute

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They also feel that net farm income will be $28.5 billion to $29.5 billion in 1981 and $32 billion in 1982. They expect gross receipts from farming to go up 14.9 per cent this year and 6.2 per cent in 1982.

Dollar volume

Both the Farm Equipment and the Agri-Equipment Divisions of FIEI median forecasts were for total dollar value of farm equipment retail sales to go up 10 per cent this year from 1980.

According to Cecil J. Stralow, marketing vice-president of Avco New Idea, who delivered the report, this is "just enough to cover inflation." He added that, "The overall unit sales forecast suggests this estimate could be accurate within 3 to 5 per cent, considering the forecast for inflation in 1981." (See I&T comment beside this article.)

Among the principal reasons given by FIEI members for expecting a rise in dollar sales volume were: Inflation, higher farm income, softening of interest rates late in 1981, end of the grain embargo to the U.S.S.R., greater export demand, more total cash receipts, and a new administration in Washington. Detriments cited by respondents who predicted a decline were: High interest rates, drought impact, limited loan funds in some areas and consumer confidence.

There were 50 participants in the survey from the Farm Equipment Div. (field machinery) and 32 from the Agri-Equipment Div. (farmstead-related lines). When they voted on dollar volume sales, the Farm Equipment group produced an opinion spread of from minus 17 to plus 23 per cent. Six of these firms saw dollar volume not changing from 1980 or declining; 21 expected sales to be up from 3 to 10 per cent; 23 others figure on a rise of anywhere from 11 to 23 per cent. Of the 32 Agri-Equipment participants, four predicted declines of from 2 to 30 per cent; 15 firms saw it running from 2 to 10 per cent higher; 13 others predicted a rise from 11 to 30 per cent.

Unit sales changes

Tractors. After posting sales of 166,151 wheel-type farm tractors in 1980, according to preliminary FIEI

(More...)

Some industrial-strength polish is needed on the crystal ball

The forecast that is put out each January by the FIEI's Marketing & Management Conference is one we always look forward to at I&T with an air of excitement. Obviously, it's one of the big recurring stories with the widest possible industry interest, for who isn't concerned about how good or bad the business is going to be during the next year?

There it is for everybody to see: Unit sales predictions on big tractors, four-wheelers, small tractors, big balers, field cultivators and many other important industry products. There are also some interesting sidelights, sometimes about ad budgets, sometimes about parts sales (both included this time) and there have been inventory discomfort indexes in the past.

Everybody reads these forecasts knowing that what happens in this business is thoroughly dependent on the level of farm prosperity, and that farm prosperity is influenced by many things that the handicappers cannot anticipate—drought, embargoes, harvest quantities among nations who are our customers or our competitors for farm product export sales, etc.

Obviously, these circumstances get in the way of delivering forecasts that turn out right on the button, so it is unfair to expect too much of the participants in this semi-annual exercise (they'll do it again in May).

However, it becomes apparent from a review of the State-of-the-Industry document that carries the consensus forecast that some of the participants are not giving the project the attention it deserves. If anyone doubts this, let him review some of the enormous "point spreads" that chronically develop in certain product areas year after year.

For example, there were 16 participants in the chisel plow forecast. Their estimates of unit sales for 1981 ran from a decline of 15 per cent to an increase of 42 per cent, with most of the predictions evenly spread from minus 10 to plus 18, with very little clustering. Can all these marketers be looking at the same market? Or are they only concerning themselves with what their individual firms are going to do? (They are expected to forecast on an industry-wide basis.)

If it can be argued that some companies in this group are too small to do a sophisticated market forecasting job, then take a look at self-propelled combines, where the spread is from plus 1 per cent to plus 21 per cent, fairly evenly spread. Combine firms are long and far removed from little-machine-shop status.

There is a lack of consistency on the part of a fair number of participants when it comes to dollar amounts and unit amounts. If the group really expects unit sales to be up 7.7 per cent on tractors, up 14 per cent on combines, and up by substantial amounts on every other product in the survey, then how can they see dollar sales rising by only 10 per cent? For both to happen would require an abrupt end to inflation-triggered price increases. Fat chance.

The group also predicted 11 and 10 per cent dollar increases in parts sales and advertising expenditures. Are they saying that they'll sell fewer or no more parts than last year? Are they planning on buying fewer pages of ads as part of the "more aggressive ad programs" they're talking about? (One veteran of the advertising sales wars around I&T shot me down on that one. "Any time," he said. "that manufacturers are not talking about drastic cuts in the ad budget, it's good news.")

With all that said, let me add this: The FIEI State-of-the-Industry forecast is the only one in town, and we love it! We hope it will continue forever, that it will grow in scope and that every one of its participants will work harder to refine his skill at estimating the market.—Bill Fogarty, Editor.

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AGRI-EQUIPMENT FORECASTS, 1981, 1982

(Per cent change, retail dollar volume)

	1981	1982
Portable Augers, Elevators	+ 5.0	+11.0
Bin-Type Crop Dryers	+ 2.0	+ 5.0
Batch, Continuous-Flow Dryers	+ 5.5	+10.0
Farmstead Equipment, Dairy/Beef	+ 5.0	+10.0
Farmstead Equipment, Hogs	+10.0	+10.0
Grain Bins	+ 3.5	+10.0
Milking Machines	+ 6.0	+ 6.5

Source: Farm & Industrial Equipment Institute.

Sales Forecasts *(continued)*

data, the industry's marketers are expecting to sell 7.7 per cent more units this year—179,000. The brightest estimate among eight respondents (presumably those eight companies that had products for sale in all four major size segments) was for a 12 per cent improvement; the most pessimistic was for a 2 per cent increase.

This group also peered at 1982 on this and other product groups. The outlook was for another improvement—2.5 per cent to 183,500 units. The "point spread" on that one was from minus two to plus 13 per cent.

Within the tractor group, little change is expected this year in unit sales of under-40-horsepower tractors (almost all made in Japan), going from last year's 46,742 up 0.6 per cent to 47,000 units. The 1982 outlook goes up 5.3 per cent to 49,500.

For tractors of from 40-99 horsepower, 1981 and 1982 are expected to see identical increases of 5.7 per cent—to 61,500 and then to 65,000 units. A sharp rebound is expected this year for the 100-hp-plus group, going up 17.2 per cent from last year's 50,332 units to 59,000 this year and another 1.9 per cent next year to 60,100. Four-wheelers are expected to rise 6.6 per cent to 11,600 units this year and another 4.1 per cent next year to 12,075.

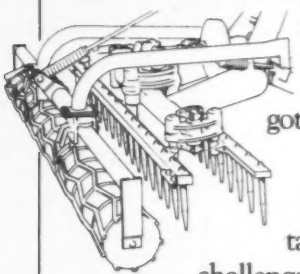
Combines, cornheads. Sales of self-propelled combines fell over 20 per cent last year from 1979's 32,246 units to 25,722. As recently as last May, the consensus forecast had been for a decline of only 2,000 units, so inventory pressures are probably rather severe right now for this high-ticket product group. The group looks for a 1981 rebound to 29,500 units, up 14.7 per cent, and

(Continued on page 28)

Cecil J. Stralow, vice-president, Avco New Idea, delivered the report on the consensus outlook at the Marketing & Management Conference held by the FIEI Jan. 30-31 at Miami Beach, Fla.

Give 'Er The Old One-Two.

One, you're plowing. Two, you're finishing with a HOWARD POWER HARROW. And that's it. You've got your seedbeds licked!



The new HOWARD POWER HARROW takes on every seedbed challenge. It's fast, wide, gutsy. You'll spend less time in your fields when every minute counts. Spend less on fuel, too, when every gallon counts. That's the combination that brings you out a winner!

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Dealership Wages and Salaries: Summing Up Three Surveys

By Jack Root

I&T reviews association and university studies of employee incomes from dealerships in Virginia, West Virginia, Ohio, Arizona, Nevada and California.

What Farm Equipment Dealers Pay Their Employees

	Far West	Ohio*	W. Va. & Virginia**
Number of dealers:	72	116	65
Type of business:			
Most agricultural	57	[illegible]	51
Most industrial	12	[illegible]	9
Ag and industrial	3	[illegible]	4
Other	—	—	1
Sales Volume:			
Under $1 million	8	33	29
$1M to $2M	17	39	24
$2M to $3M	11	23	8
$3M to $5M	20	13	2
Over $5M	16	8	—
Monthly Salary rates:			
Sales manager	$2,200	—	$1,385
Service manager	$1,830	$6.62 hr.	$1,048
Parts manager	$1,650	$6.40 hr.	$ 970
Office manager	$1,600	—	$ 922
Bookkeeper	$1,000	$4.70 hr.	$ 3.94 hr.
Hourly Wage rates:			
Top mechanic	$8.88	$6.29	$5.44
Regular mechanic	$7.14	$5.27	$4.33
Truck driver	$7.16	$5.22	$3.76
Partsman	$6.91	$5.01	$3.92
Salesman's compensation:			
Straight commission	—	$19,100	NA
Salary only	$21,000	$19,700	NA
Salary and comm	$25,000	$16,400	NA
Customer rates:			
Shop	$24.25	—	$13.00
Welding	$26.50	$17.67 avg.	$15.30
Field	$26.13	—	$13.60

* Agricultural dealers only, FWEDA and Virginia statistics are for all dealers.
** 1978 data

■SERVICE managers and shop workers from three western states are paid more than their counterparts in two other geographic areas, according to recent wage and salary surveys conducted by or for dealership associations.

Data shown in the accompanying chart are results from 1980 surveys for the California, Arizona and Nevada dealerships that comprise the Far West Equipment Dealers Assn. (FWEDA), and dealer members of the Ohio Farm & Power Retailers Assn. The figures for Virginia and West Virginia dealers are based on 1978 data and are part of a 1979 report by ag economists from Virginia Polytechnic Institute and State U.

Reporting procedures differed for the three surveys. The data for Ohio dealerships shown in the table are for *agricultural dealers* only. The other two surveys combined the wage and a salary data for *all categories* of dealers.

Comparative data from previous years were available only in the FWEDA report. It showed that service managers of the 72 reporting dealers eked out only a *$30 a month increase* over the previous year. In that survey of 48 dealers, the service manager's salaries recorded a 17 per cent increase. This puts the service managers salaries 1.5 per cent ahead of last year, but $370 a month behind what the average dealership sales manager receives.

Salesmen's earnings

FWEDA member salesmen working on salary only averaged $21,000 a year, while those working on a salary (base of $9,000) and commission earned $25,000. The Ohio report showed the average annual compensation for all of the 102 salesmen in the sample was $18,098. No data were available

(More...)

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Wage-Salary Surveys

(continued)

from the Virginia report.

Shop wages

In the five geographical areas of the Far West group, average hourly rates (median values) were up slightly from last year's report on four shop jobs—top mechanic, regular mechanic, truck driver and partsman. They were also ahead of figures reported for Ohio and the Virginias.

The reports show hourly workers in the Far West study averaged 40 hours a week, while those in Ohio and the Virginias worked an average of 40- to 50-hours per week. Salaried employees worked 50-plus hours a week in the far west, 44.5 hours in Ohio and 45-50 hours in the Virginias.

Customer rates

Customer rates ranged from $24.25 to $26.30 per hour for shop, welding and field work among FWEDA dealers. The average rate for the three types of customer services in Ohio was $17.67 per hour, and Virginia dealers' rates ranged from $13 to $15.30 per hour.

Western dealers were more liberal with vacation time. The majority allowed two weeks vacation after one year. Most of the other association's dealers offered only one week's vacation after a year's employment. Western dealers also allowed seven paid holidays with one-third of them granting eight or more holidays a year. No data on holiday policies were available from the other association reports.

Other benefits

Other employee benefits included profit-sharing, offered to half of the employees in the west and by 30 per cent of the dealers in the Virginias; pension plans offered to one-third of the employees of far west dealers and by 21 per cent of Virginia dealers to their employees.

Life insurance was part of the benefit package reported by 72 per cent of Ohio dealers and 85 per cent of Virginia dealers. Hospital insurance was provided to 93 per cent of the reporting Ohio dealers and 97 per cent of dealers in the Virginias. No data were available from the FWEDA report. □

Sales Forecasts

(Continued from page 20)

for a further 4.1 per cent rise in 1982 to 30,700.

Cornhead sales were also down sharply in 1980 but are anticipated to rise 9.1 per cent this year to 19,400 units and another 7 per cent next year to 20,750.

Other items. The industry marketers have a very upbeat approach to 1981 unit sales on every other piece of field equipment they included in the forecast. Even moldboards and conventional balers are up modestly, while field cultivators, big balers and forage harvesters are expected to show dramatic sales increases.

Agri-Equipment. This product group's members do their forecasting in terms of *per cent of change in retail dollar volume.* Unit numbers are not discussed.

In view of this, they appear to have a generally negative outlook on 1981 sales prospects, unless they are disregarding inflation and making no price increases from 1980 levels. For 1981, only hog-related farmstead equipment is expected to keep pace with a 10 per cent dollar sales rise. Other products are expected to post very modest dollar gains—from bin-type crop dryers (up 2 per cent) to milking machines (up 6 per cent).

Lawn and garden lines. This product group is expected to show a retail dollar volume increase of 5 per cent, a median figure derived from a very broad spread—from minus 18 to plus 20 per cent.

Parts sales

When times are tough, the industry looks to the parts operations of its member companies as a source of support, since delayed purchases of new equipment imply that owners will be spending more on replacement parts to keep their present machinery going.

Thus, a new feature in the FIEI survey is of particular interest—Farm Tractor and Equipment Retail Parts Sales. Dollar volume is expected to be up 11 per cent, according to the consensus estimate.

There were 38 participants in the question about parts sales. One of them predicted a 9 per cent decline in volume but all others saw increases in store. Most of these ran from 5 per cent to 24 per cent. But one has to wonder what vision passed before the eyes of the industry marketer who predicted a 120 per cent increase in parts dollar volume.

Alternate fuels

A recent survey by the FIEI to all land-grant colleges revealed that in 1980 there were probably less than 1,000 tractors and other mobile equipment (excluding cars and trucks) fueled by alcohol, gasohol or diesohol. By 1986, FIEI members think the number of farms using some alternative fuel in engine-driven farm equipment will increase 10 per cent. The wide range of responses (from plus 0.9 to 75 per cent) indicates that the rate of increasing use of such fuels is unknown.

Generally, says the report, equipment manufacturers believe this idea is consistent with the self-sufficient nature of American farmers and will be more significant in the future.

Ads, exports

FIEI members indicated that their outlays of advertising dollars would be up a median 10 per cent in 1981. Members predicting an increase gave these reasons, according to the Stralow report:

- **More aggressive** advertising programs needed for the 1981 marketplace.
- **Inflation**—increased rates.
- **Increase** of marketing area.

Generally, FIEI members perceive 1981 as a "difficult year requiring extra effort."

Over 85 per cent of respondents feel that United States exports of farm equipment will increase in the next three to five years. Of the other, 6.4 per cent said they expect declining sales and 8.5 per cent indicated they anticipate no change.

The most favored areas as export sales prospects by farm equipment manufacturers were ranked thus:

South America—39.5 per cent; Asia/Pacific—34.9 per cent; Canada—11 per cent; Western Europe—7 per cent; Africa—4.7 per cent; Eastern Europe—2.3 per cent. □

Here's more about the TRACTOR CENSUS

By Bill Fogarty

Preliminary report: NUMBERS OF TRACTORS ON FARMS, 1978 FARM CENSUS —SOME IMPORTANT CHANGES

State	All Farms		Farms With Sales of $2,500 or More	
	Ag Census 1978	Ag Census 1974	Ag Census 1978	Ag Census 1974
Alabama	75,519	66,588	54,767	43,827
Alaska	520	396	375	305
Arizona	12,846	12,214	10,828	10,727
Arkansas	89,633	75,825	74,037	59,438
California	136,640	112,822	118,510	99,331
Colorado	60,718	55,286	54,228	50,158
Connecticut	9,251	7,405	6,831	6,165
Delaware	8,743	7,485	8,138	6,952
Florida	57,172	42,125	44,394	32,355
Georgia	86,690	74,758	67,507	58,154
Hawaii	3,008	2,130	2,532	1,910
Idaho	55,759	49,689	50,781	45,068
Illinois	286,861	267,761	270,626	253,637
Indiana	183,227	164,535	164,108	147,163
Iowa	328,275	313,920	318,269	304,124
Kansas	160,700	158,607	150,051	147,090
Kentucky	185,011	126,357	140,903	98,198
Louisiana	64,564	54,536	49,923	41,662
Maine	15,084	12,508	11,268	10,392
Maryland	41,407	33,837	35,756	28,791
Massachusetts	10,974	8,630	8,523	7,012
Michigan	157,886	139,883	129,975	116,804
Minnesota	283,075	255,791	260,672	238,134
Mississippi	81,453	74,694	60,814	51,969
Missouri	205,224	185,123	182,533	151,015
Montana	56,042	53,914	52,291	50,314
Nebraska	177,872	168,085	172,853	162,197
Nevada	5,428	4,895	4,730	4,291
New Hampshire	5,665	4,616	3,895	3,420
New Jersey	23,249	18,579	19,411	16,055
New Mexico	17,585	16,369	13,733	12,954
New York	128,374	112,120	107,737	95,375
North Carolina	153,464	127,827	128,694	102,259
North Dakota	122,350	120,360	119,205	117,530
Ohio	206,624	184,634	178,978	157,769
Oklahoma	106,142	89,579	90,349	73,032
Oregon	52,575	44,340	41,472	34,840
Pennsylvania	143,039	119,223	119,259	94,929
Rhode Island	1,748	1,285	1,261	1,025
South Carolina	53,655	44,236	39,874	33,039
South Dakota	113,005	113,241	109,439	109,500
Tennessee	129,424	107,936	99,406	70,208
Texas	281,189	246,081	227,257	181,474
Utah	22,345	20,054	18,461	16,036
Vermont	16,396	13,694	13,551	12,104
Virginia	90,200	73,847	72,107	55,188
Washington	58,454	49,433	47,917	40,983
West Virginia	28,021	22,112	16,361	10,366
Wisconsin	258,751	232,985	238,101	212,214
Wyoming	19,830	19,490	18,393	18,157
TOTALS	4,850,667	4,311,822	4,231,084	3,695,440

Source: 1978 Census of Agriculture, Preliminary State Reports.

■IN I&T's Market Statistics Issue last Nov. 7, we printed a table containing data from 36 states disclosing the tractors-on-farms totals developed by the U.S. Census of Agriculture in 1978 vs. 1974. At the time, we promised we would publish the full 50-state table when all the numbers were in. Here it is.

The Census Bureau announced last fall that "significant improvements in data collection procedures" were used in the 1978 Census of Agriculture that had not been available in 1974, the year of the previous count.

With all the numbers in, we find an increase of over one-half million tractors on U.S. farms, whether you consider the "All Farms" category or the columns involved only with tractors on farms which had 1978 sales of farm products of $2,500 or more.

If we accept the revised approach of the government's enumerators as a better reflection of actual tractor population (and we know of no reason not to do so), then we can contemplate the presence of 4.85 million tractors on all farms—12.5 per cent more than the 1974 count—and 4.23 million on farms with sales of $2,500—a hike of 14.5 per cent. Previously, in 1964, the Agriculture Census had counted a peak of 4.78 million tractors. Numbers had been declining since then.

Examining the states

A brief scanning of the totals in the accompanying table tells us that the major increases in the count came in states east of the Mississippi. Pennsylvania's total went up 20 per cent to 143,000 units; among Kentucky's farms with sales of over $2,500, the total rose from 98,198 tractors to 140,903—a 43 per cent hike.

By way of contrast, the totals in

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North and South Dakota, for example, were almost unchanged, moving only from 233,600 to 235,585 tractors. The percentage shift in Iowa was not much—4.5 per cent upward—but Iowa is the most tractor-populous state in the union at 328,275, so we're talking about an extra 15,000 units.

The geographical differences suggest that the "hidden" tractors that have been unearthed are for the most part older and smaller, residing on smaller farms. There are comparatively few small holdings in the western states, where tractors tend to be bought in the higher horsepower brackets.

In the southern and eastern states, however, the incidence of "sundown farming" is generally regarded as being a much more common activity. Many such operations could not exist if it were not for the availability of small, simple, serviceable used tractors, often 25 years old or more. And the trade in these tractors, their parts and attachments has provided a solid segment for many farm equipment dealers, distributors, shortline manufacturers and, indirectly, for major manufacturers.

Questions

The new data produced by the Census of Agriculture raise some new questions that are particularly important to suppliers of such things as belts, hoses, tires, lubricants, filters, etc. If there are more tractors, are there more hours of tractor use than had been supposed? How much motor fuel is used in farming in a county or state can be determined from checking the amount of rebates to farmers on state fuel taxes. Could this information, plus county data from the Ag Census about tractors on farms tell us more about hours of use per year?

Another question arises: How effectively do the marketers of motor supplies and replacement parts promote their wares in those states with the newly discovered additions to tractor population?

How many of these additional tractors are gasoline-fueled? Would this have an effect on how many farmers would be interested in farm-produced alcohol as an alternate fuel? Or on how readily entrepreneurs might try to develop stills and still-related products for them? □

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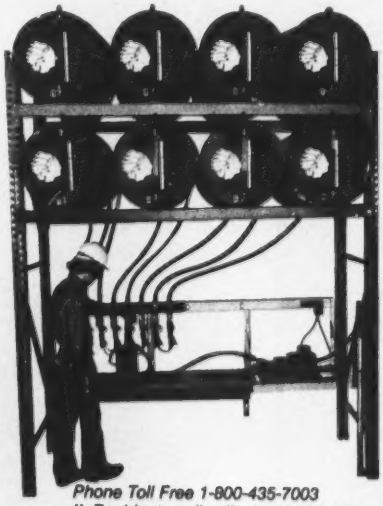

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